

Title (en)

METHOD AND DEVICE FOR CONTROLLING FLOW OF LIQUID ZINC IN ZINC POT FOR HOT-DIP GALVANIZATION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR STEUERUNG DES FLUSSES VON FLÜSSIGEM ZINK IN EINEM ZINKTIEGEL ZUR FEUERVERZINKUNG

Title (fr)

PROCÉDÉ ET DISPOSITIF DESTINÉS À COMMANDER L'ÉCOULEMENT DE ZINC LIQUIDE DANS UN POT DE ZINC DESTINÉ À UNE GALVANISATION PAR IMMERSION À CHAUD

Publication

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Application

EP 18813530 A 20180316

Priority

- CN 201710417938 A 20170606
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Abstract (en)

[origin: US2020010943A1] Disclosed are a method and a device for controlling flow of liquid zinc (2) in a zinc pot (1) for hot-dip galvanization. Under the blowing effects of an air knife above the zinc pot (1) for hot-dip galvanization onto strip steel (3), the liquid zinc (2) diffuses and flows outwards to zones (zones I, II, III and IV) comprising the left side, the right side, the front end of the zinc pot, respectively, and a zone between the strip steel (3) and a furnace snout (4), and surface dross rapidly generated on the surface of the liquid zinc (2) is driven to flow outwards to the zones (zones I, II, III and IV). On edge sides of the zones (zones I, II, III and IV), travelling magnetic field generators (71, 72, 73, 74, 75, 76, 77, 78, 712, 756) are arranged in multiple sections above the surface of the liquid zinc (2) in the zinc pot (1), so as to excite a travelling magnetic field to generate an electromagnetic driving force on the liquid zinc (2) to drive the flow of the liquid zinc (2). The flow of the liquid zinc (2) caused by the travelling magnetic field generators (71, 72, 73, 74, 75, 76, 77, 78, 712, 756) is engaged with the blowing flow of the air knife, driving the surface liquid zinc (2) in the zinc pot (1) to flow in order towards a rear end (zone V) of the zinc pot (1). The surface dross floating on the surface of the liquid zinc (2) is driven by the flowing liquid zinc (2) to flow in a controlled direction.

IPC 8 full level

C23C 2/06 (2006.01); **C23C 2/40** (2006.01)

CPC (source: CN EP KR US)

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